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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,293	10/06/2000	Takehiko Shigefuji	P19894	1800

7055 7590 04/15/2005

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EXAMINER	
GOODMAN, CHARLES	
ART UNIT	**PAPER NUMBER**
3724	

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/680,293	SHIGEFUJI ET AL.	
	Examiner	Art Unit	
	Charles Goodman	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 April 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-19 and 21-38* is/are pending in the application.

4a) Of the above claim(s) *15-19 and 23-38* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14,21 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Receipt is acknowledged of the Request for Reconsideration filed on April 30, 2003.

2. As noted in the last Office Action, the Supplemental Amendment filed on May 1, 2002 has been entered.[1]

Election/Restrictions

3. Claims 15-19 and 23-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group and Species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 12.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 21 is vague and indefinite in that it is not clear what "efficiency" is referring to. The scope of the term is too broad to ascertain since in this instance, many things may be considered as being "efficient".

b. Claim 22 is vague and indefinite in that it is not clear what the "maximizing" clause encompasses. How is the "flatness" maximized? What is the standard upon which this may be determined? Moreover, how does the number of tool replacements affect the "flatness"?

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 14, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anjo (US 5,056,014).

Anjo discloses the invention substantially as claimed including, inter alia, identification media (45) on a punch (17) and a punch identification media reader (43, 51). In Anjo, the media identifies both the punch and the corresponding die; hence, Anjo lacks a separate identification reader and arguably a separate identification media for the die. However, providing a separate reader and identification media for the die are deemed to be an obvious addition to Anjo since the single medium reader as taught by Anjo is capable of reading media from both the punch and the die and since both a punch and die are of equal importance in Anjo due to the fact that in a punching operation, the punch and die must work together to punch. Moreover, for a given punch of specific design, i.e. dimensions and shape, there must be a corresponding die for that given punch as is well known in the art. For example, a punch having a round punching face

[1] As noted by the Applicant, the Examiner had incorrectly identified the filing date of the Supplemental Amendment as April 3, 2002.

with a diameter of 10 mm cannot work with a die having a 15 mm diameter circular opening because that would not allow for the desired punch pattern, i.e. the larger diameter opening causes the typical web material (usually a sheet of metal) to deform in the area of the diameter difference between the punch and die and the resulting punched hole would not be bur free. On the other hand, a die having a 10.1-11 mm diameter circular opening (or any opening within close tolerances that facilitate passage of the punch therethrough) is the die that the ordinarily skilled artisan would associate with the 10 mm punch because this die allows for a substantially bur free punched hole, i.e. the difference in diameters between the punch and the die is substantially small enough to prevent burring (ragged edges in the punched hole opening) during the punching operation. Thus, it would have been obvious to the ordinary artisan at the time of the instant invention to provide the method of Anjo with an additional reader, albeit for the die, and a separate identification media for the die containing information specific to the die in order to facilitate, in addition to the reasons stated *supra*, enhanced tool exchange management of the punches, dies and combinations thereof, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art, *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8, and since (with respect to the die media) it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Regarding the "minimizing" and "efficiency" aspect in the claims, these are deemed to be obvious parameters in which the ordinarily skilled artisan takes into consideration when operating the punching processes although Anjo, alone or modified,

may lack specific references to this feature. Moreover, such minimizing is inherent in Anjo because according to Applicant's disclosure, tool replacements are minimized merely by allowing the control to select the tools mounted on the turret. Note Application Specification, p. 24, ll. 2-5. In line with the instant application definition, then Anjo, alone or modified, inherently performs the same due to the fact that each of the punches and dies are identified on the turret and the operator selects the combinations proper for the operation. Note c. 3, ll. 5-9 and c. 4, ll. 22-29.

8. Claims 14, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anjo (US 5,056,014) in view of Kamada (US 5,595,560) and Watanabe (US 5,297,022).

Anjo discloses the invention substantially as claimed including, inter alia, identification media (45) on a punch (17) and a punch identification media reader (43, 51). In Anjo, the media identifies both the punch and the corresponding die; hence, Anjo lacks a separate identification reader and arguably a separate identification media for the die. However, providing a separate reader and identification media for the die are deemed to be an obvious addition to Anjo since the single medium reader as taught by Anjo is capable of reading media from both the punch and the die and since both a punch and die are of equal importance in Anjo due to the fact that in a punching operation, the punch and die must work together to punch. Note c. 4, ll. 30-32. To further expand this point, for a given punch of specific design, i.e. dimensions and shape, there must be a corresponding die for that given punch as is well known in the art. For example, one of ordinary skill in the art would not have a punch having a circular punching face with a diameter of 10 mm cooperating with a die having a 15 mm

diameter circular opening because that would not allow for the desired punch pattern, i.e. the larger diameter opening causes the typical web material (usually a sheet of metal) to deform in the area of the diameter difference between the punch and die and the resulting punched hole would not be bur free. On the other hand, a die having a 10.1-11 mm diameter circular opening (or any opening within close tolerances that facilitate passage of the punch therethrough) is the die that the ordinarily skilled artisan would associate with the 10 mm punch because this die allows for a substantially bur free punched hole, i.e. the difference in diameters between the punch and the die is substantially small enough to prevent burring (ragged edges in the punched hole opening) during the punching operation. Kamada's teachings illustrate this point. Kamada teaches a die management method for punch presses wherein both the punch (16) and the die (18) have their own separate identification media and this information is read by an identification media reader (40). See c. 5, l. 51 - c. 6, l. 14. At the very least Kamada teaches that an identification reader for a punch may also be used to read a die; that the correlation of, e.g. shape, of the punch is important with respect to the die (c. 6, ll. 19-24); and that having a separate identification media for the die allows for better management of both the punches and dies and combinations thereof. Note e.g. c. 1, ll. 50-62. Therefore, it would have been obvious to the ordinary artisan at the time of the instant invention to provide the method of Anjo with an additional reader, albeit for the die and a separate identification media for the dies as taught and suggested by Kamada in order to facilitate enhanced tool exchange management of the punches, dies and combinations thereof, since with respect to the separate reader it has been held that

mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding the "minimizing" and "efficiency" aspect in the claims, these are deemed to be obvious parameters in which the ordinarily skilled artisan takes into consideration when operating the punching processes although Anjo, alone or modified, may lack specific references to this feature. Moreover, such minimizing is inherent in Anjo because according to Applicant's disclosure, tool replacements are minimized merely by allowing the control to select the tools mounted on the turret. Note Application Specification, p. 24, ll. 2-5. In line with the instant application definition, then Anjo, alone or modified, inherently performs the same due to the fact that each of the punches and dies are identified on the turret and the operator selects the combinations proper for the operation. Note c. 3, ll. 5-9 and c. 4, ll. 22-29. To underline this point, Watanabe teaches that it is old and well known in the art that in programming a machining operation, minimizing tool changing operations is a well known programming feature to the ordinary artisan, all in the name of efficiency. Note c. 4, l. 63 - c. 5, l. 25 with specific reference to c. 5, ll. 10-13. Therefore, since it has been argued that Anjo lacks this feature, it would have been obvious to the ordinary artisan at the time of the instant invention to provide the modified method of Anjo with the programming step of minimizing the number of punch and die replacements as taught and suggested by Watanabe in order to facilitate efficient operation of the punch press by maximizing tool usage.

Response to Arguments

9. Applicant's arguments filed April 30, 2003 have been fully considered but they are not persuasive.

In response to Applicant's basic argument that the claimed invention is not obvious over Anjo due to the allegation that Anjo does not disclose or suggest "minimizing" or "efficiency" as claimed, this argument is traversed. It is the Examiner's opinion that although Anjo may not explicitly include these considerations, these aspects of programming are inherent since one of ordinary skill in the art typically programs the punching process to minimize down time, inter alia, as well as maximize efficiency of any machining operation, especially a punching operation. To further expand on this point, one of ordinary skill in the art of turret punches and the operation thereof must always consider the costs of operating these devices. In other words, all commercial businesses operate on the principal of profits from said business. The Applicant has admitted as much in the arguments.[2] Another adage that applies to commercial businesses is the concept of "time is money." Note for example Anjo, c. 5, ll. 42-44. In the art of turret punches, the ordinary artisan is dealing with expensive automated equipment wherein the punching assemblies (respective punch and die pairs) must be made to close tolerances and specifics (especially for certain machining operations) which inherently means that these punching assemblies are expensive. Because of the fact that the ordinary skilled artisan realizes that they must minimize costs in order to maximize profits, the artisan must minimize the down time that occurs when tools must be changed, i.e. since time is money, any unproductive time spent is

money being wasted, and the artisan must insure that the tools (punching assemblies) must be used to their maximum efficiency, i.e. the less replacement punching assemblies used for a given operation means that there are less costs involved in producing that product due to the expensive nature of the punching assemblies themselves. In other words, one of ordinary skilled in the art knows the wear rate of the punch for a given operation, and the artisan would program the operation such that minimum tools would be used. Claim 14 states that "...replacements of punches in said punch supporting member and dies in said die supporting member is minimized". That presumes that the following parameters are known: the material of the work, the number of products produced from the work, the specific punch and die pair(s) required for the work, and the effect that the operation would have on the tools. All of these parameters are well known to the ordinary artisan, i.e. inherent, prior to proceeding with the punching operation. Because of the fact that the operator would have already chosen the tools required for the given operation and in line with Applicant's definition of the disputed feature in claim 14, Anjo clearly and/or inherently includes this limitation, i.e. if the application specification equates minimizing tool replacements with pre-selecting of tools in the turret, then Anjo teaches the same.

In response to Applicant's basic argument that the modification of Anjo as set forth in the rejection is not a mere duplication of parts, this argument is traversed. Clearly Anjo teaches identification media and a reader. The media is located on the punch and it contains information relevant to both the punch and die. This is the same information that Applicant's invention reads, i.e. punch reader to read information on

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[2] Request for Reconsideration, Paper No. 15, p. 3, ll. 17-19.

and relevant to the punch and a die reader to read the information on and relevant to the die. The obviousness of the duplication is that the end result would still be the same as before, the readers would read the information for the punch and die. Stated another way, the reader in Anjo is essentially a scanner capable of reading the information contained in the media or bar code. If the scanner can read one bar code, it can certainly read another. Thus the basis for the statement that Anjo's reader is capable of reading the die. Although the media in Anjo located on the punch has information pertaining to both the punch and die, it is an obvious modification to have media on the die as well such that information specific to the punch and information specific to the die are separately located. The advantage to such a modification allows for better tool exchange management, since if one part of the pair (either the punch or the die) happens to wear out faster than the other, then only the worn part would require replacement instead of the whole pair.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Goodman whose telephone number is (571) 272-4508. The examiner can normally be reached on Monday-Thursday between 7:30 AM to 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap, can be reached on (571) 272-4514. In lieu of mailing, it is encouraged that all formal responses be faxed to (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

Charles Goodman
Primary Examiner
AU 3724

cg
April 7, 2005

CHARLES GOOD
PRIMARY EXAMI